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west virginia department of environmental protection

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Jim Justice, Governor  
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## BACKGROUND INFORMATION

Application No.: 13-3081D  
Plant ID No.: 051-00143  
Applicant: CONE Gathering, LLC  
Facility Name: Majorsville  
Location: Majorsville, Marshall County  
NAICS Code: 486210  
Application Type: Administrative Update  
Received Date: January 30, 2017  
Engineer Assigned: Jonathan Carney  
Fee Amount: \$300.00  
Date Received: January 31, 2017  
Complete Date: February 28, 2017  
Due Date: April 20, 2017  
Applicant Ad Date: February 20, 2017  
Newspaper: Moundville Daily Echo  
UTM's: Easting:539.827      Northing: 4,424.302      Zone:17  
Description: The applicant proposes that the language associated with the Blowdown Flare be changed to address that the control device will be operated for more than controlling just emergency emissions. The Blowdown Flare shall control venting from maintenance activities associated with compressor blowdowns, pigging depressurizations, and station emergency shut down (ESD) events. The original permit authorized operation of this control device (R13-3081C) to include these venting scenarios within the unit's emission calculations and they are reflected within the annual waste gas throughput limits however, the last permit termed the device as an emergency only unit. Additionally, the process flow diagram and emission unit tables are also being revised to reflect equipment removed from the site and to include electrically driven reciprocating engines that were originally not listed on the equipment table. These electric units are being added because of the compressor rod packing requirements.

## PROPOSED CHANGES

The applicant proposes to change the classification of the emergency blowdown flare from "Emergency Blowdown Flare" to an "Emergency/Maintenance Blowdown Flare".

The applicant also proposes to include electrical reciprocating compressors (ELEC-1 through ELEC-6) and electrical vapor recovery units (VRU-2 through VRU-4) as emission points.

The applicant proposes the following changes to the Equipment Table:

- Tank, T11 – 400 bbl storage vessel was never installed
- Tank, T01 – 1,150 gal Stabilized Condensate Surge Drum was determined to be a process vessel rather than a storage vessel
- Engine, E-3 – Caterpillar 3608LE DM8606 02 Compressor Engine was replaced with an electrically driven compressor engine

The Process Flow diagram has been updated to reflect current operating status and to show where the additional VRU reciprocating compressors are utilized within the process. It was noted that all these compressors are driven by electric motors so the only applicable requirements are those pertaining to the reciprocating compressor packing standards of 40CFR60, subpart OOOO. Although the VRU-1 compressor is driven by an electric motor it utilizes a screw compressor so it is listed as a storage vessel control device, but is not subject to the reciprocating compressor packing requirements.

## SITE INSPECTION

Inspection Date: June 4, 2015

Facility Status as a Result of Inspection: Out of Compliance

Inspector: John Moneypenny

Findings/Recommendations:

**Upon arrival I met with Joe Estanich, 304-884-2013. No visible emissions or objectionable odors were noted during the inspection. Mr. Estanich noted that only E-3 and E-4 engines are currently being used. The other engines listed in the permit were replaced with electrical units over the last year. The site, although remote, is served by a power supply which has ample capacity to operate the electrical units. The electrical units are capable of moving more gas per unit, and require less maintenance at nearly the same capital investment.**

**E-3 is scheduled to be replaced in July 2015. The electrical unit which will replace it was being set in place on this day. The station averages around 300MM SCFD and has a station inlet of 400 psig and outlet of 800 psig. The engines were tested in 2014 per NSPS Subpart JJJJ. The results did**

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not meet the emission standards of NSPS Subpart JJJJ. The engine exhaust catalyst beds were doubled in capacity and then retested in early 2015 with passing results. All maintenance records for the engines and dehydration units are kept on-site. Monthly Method 22 opacity readings are documented as required in the permit.

The dehydration unit regenerator still vents are each equipped with a flare. The maximum annual estimated emissions of benzene from each unit (0.10-0.20 tpy) are thus well below the 1.0 tpy threshold noted in NSPS Subpart HH.

The station does have an emergency flare which was not listed in the permit application. This will be addressed in a Notice of Violation.

Directions: From Wheeling, WV travel East on I-70 for approximately 9.3 miles. Take Exit 11 onto Dallas Pike. Turn right onto Dallas Pike and travel approximately 1.7 miles. Take a slight left onto Middle Wheeling Creek Road (Old Co. 39) for 0.4 miles. Continue onto Dallas Pike and travel 3.0 miles. Turn right onto Number 2 Ridge Road and travel 3.6 miles. Turn right and the facility will be 0.5 miles on the right.

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### ESTIMATE OF EMISSIONS BY REVIEWING ENGINEER

There is no change in the emissions from blowdown flare. The original permit application (R13-30181C) included maintenance venting scenarios within the flare's emissions calculations however the permit termed the device an emergency only unit. The only change is to the description of the flare being for control of emergency and maintenance venting.

The control of emissions resulting from the addition of the vapor recovery units, VRU-2, VRU-3, and VRU-4, will result in no increase in emissions.

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## REGULATORY APPLICABILITY

### **45 CSR 13 (Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Administrative Updates, Temporary Permits, General Permits, and Procedures for Evaluation)**

The changes in the permit conditions necessary to allow the blowdown flare to be used for maintenance scenarios and that result in no change to emissions requires a Class II administrative update. Vapor recovery units, VRU-2 through VRU-3, result in no change to emissions.

As required under §45-13-8.3 ("Notice Level A"), CONE Gathering, LLC placed a Class I legal advertisement in a "newspaper of *general circulation* in the area where the source is . . . located." The ad ran on February 20, 2017 in the *Moundsville Daily Echo* and the affidavit of publication for this legal advertisement was submitted on February 28, 2017. The application fee of \$300 was received on January 31, 2017.

### **40CFR60, Subpart OOOO – Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution for which Construction, Modification or Reconstruction Commenced after August 23, 2011, and on or before September 18, 2015.**

The Majorsville compressor station operates 6 sales gas reciprocating compressors and 3 VRU reciprocating compressors all of which were installed after August 23, 2011 and before September 18, 2015. As a result, these units are subject to the compressor packing requirements of this standard. The source is exercising the option of changing packing requirements of this standard. The source is exercising the option of changing the compressor packing every 26,000 hours or 3 years in order to maintain compliance.

The site maintains records to track the hours of operations for each reciprocating compressor since they were placed into service and in the future from the last compressor packing replacement.

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## TOXICITY OF NON-CRITERIA REGULATED POLLUTANTS

There will be small amounts of various non-criteria regulated pollutants emitted from the combustion of natural gas. However, due to the concentrations emitted, detailed toxicological information is not included in this evaluation. There will be a decrease in the already small amounts of various non-criteria regulated pollutants emitted from the combustion of natural gas with the removal of the natural gas-driven engine that is part of this administrative amendment.

## AIR QUALITY IMPACT ANALYSIS

Modeling was not required of this source due to the fact that the facility is not subject to 45CSR14 (Permits for Construction and Major Modification of Major Stationary Sources of Air Pollutants) or 45CSR19 (Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution which Cause or Contribute to Nonattainment) as shown in the table listed in the Regulatory Discussion section under 45CSR14/45CSR19.

## MONITORING OF OPERATIONS

No changes to monitoring of operations are included

## CHANGES TO PERMIT R13-3081C

Table of Contents was updated according to R13-3081D application.

Tank, T11, was removed from Section 5.0 of the permit

Reference to SCR was corrected to Oxidation Catalyst and reference to multiple engines was changed to a singular engine (E4) since E3 was deleted in Section 7.0 of the permit.

Engine, E3, was deleted from Section 8.0 of the permit.

Engine, E3, was deleted from Section 9.0 of the permit.

ELEC-1 through ELEC-3, ELEC-5, and ELEC-6 and VRU-2 through VRU-4 were added to Section 9.0.


Engine, E3, was deleted from Section 10.0.

Maintenance was added to the operating scenarios of the Blowdown Flare Control device.

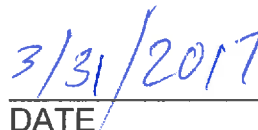
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## RECOMMENDATION TO DIRECTOR

The information provided in the permit application indicates CONE Gathering, LLC should meet all the requirements of applicable regulations. Therefore, impact on the surrounding area should be minimized and it is recommended that the Marshall County location should be granted a 45CSR13 administrative update for their facility.

A handwritten signature in blue ink, reading "Jonathan Carney", written over a horizontal line.

Jonathan Carney  
Permit Writer

A handwritten date "3/31/2017" in blue ink, written over a horizontal line.

DATE

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